

## APPENDIX IV

LAND USE/LAND COVER	AREAS IN HUC-10 SUBWATERSHEDS (ACRES)			
	01	02	03	04
Deciduous Forest	34,486	23,959	9,539	18,463
Emergent Herbaceous Wetlands				
Evergreen Forest	2,240	3,925	672	1,358
High Intensity: Commercial/Industrial/Transportation	169	1,048	91	509
High Intensity: Residential	96	2,479	53	1,460
Low Intensity: Residential	677	9,240	191	2,204
Mixed Forest	10,184	27,222	9,512	12,390
Open Water	914	2,360	376	783
Other Grasses: Urban/Recreational	37	614	9	504
Pasture/Hay	24,252	35,319	17,091	17,541
Row Crops	22,431	60,701	51,410	41,023
Transitional	140	156	15	77
Woody Wetlands	382	17,989	6,255	2,003
Bare Rock/Sand/Clay			1	9
Quarries/Strip Mines		251	2	5
<b>Total</b>	<b>96,010</b>	<b>185,262</b>	<b>95,216</b>	<b>98,329</b>

**Table A4-1. Land Use Distribution in Loosahatchie River Watershed by HUC-10.** Data are from 1992 Multi-Resolution Land Characterization (MRLC) derived by applying a generalized Anderson Level II system to mosaics of Landsat thematic mapper images collected every five years.

HYDROLOGIC SOIL GROUPS
<b>GROUP A SOILS</b> have low runoff potential and high infiltration rates even when wet. They consist chiefly of sand and gravel and are well to excessively drained.
<b>GROUP B SOILS</b> have moderate infiltration rates when wet and consist chiefly of soils that are moderately deep to deep, moderately to well drained, and moderately coarse to coarse textures.
<b>GROUP C SOILS</b> have low infiltration rates when wet and consist chiefly of soils having a layer that impedes downward movement of water with moderately fine to fine texture.
<b>GROUP D SOILS</b> have high runoff potential, very low infiltration rates, and consist chiefly of clay soils.

*Table A4-2. Hydrologic Soil Groups in Tennessee as Described in WCS.*

STATION	HUC-10	AGENCY	NAME	AREA (SQ MILES)	LOW FLOW (CFS)		
					1Q10	7Q10	3Q20
07030240	0801020902	USGS	Loosahatchie River	262	68.8	71.5	67.4
LE111	0801020902	USACOE	Loosahatchie River				
07030280	0801020902	USGS	Loosahatchie River	505	55.7	57.3	49.8
07030270	0801020902	USGS	Clear Creek				
07030295	0801020902	USGS	Loosahatchie River				
07030245	0801020903	USGS	Kelly Branch				

**Table A4-3. Historical Streamflow Data Summary Based on Mean Daily Flows in Loosahatchie River Watershed.** USGS, United States Geological Survey; USACOE, United States Army Corps of Engineers.

PARAMETER	SUBWATERSHED	
	01	02
E. coli	A, C, D	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #
Fecal Coliform	A, C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Enterococcus	A, C, D	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #
Fecal Streptococcus	F	W, X, α
Acidity		
Alkalinity (Total)	A, C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, α, β, δ
BOD <sub>5</sub>	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Conductivity (Field)	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α
COD (Low)		α
DO	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α
Hardness (Total)	A, C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
pH (Field)	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α
Residue (Settleable)	A, C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Residue (Suspended)	D, E, F	H, J, K, L, M, N, O, P, R, T, U, V, W, X, Y, Z, #, α, β, δ
Temperature	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α
Turbidity		W, X
Biological Monitoring	A	
Ammonia N	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
As	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Cd	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Chlorophyll a	F	α, β, δ
Cr (Total)	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Cu	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Hg	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Mn	E, F	α
N (Total Kjeldahl)		W, X, Z, α
Ni	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
NO <sub>2</sub> +NO <sub>3</sub>	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
P (Total)	A, C, D, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
Pb	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ
TOC		W, X
Zn	C, D, E, F	H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z, #, α, β, δ

PARAMETER	SUBWATERSHED	
	03	04
E. coli	π, ■	&
Fecal Coliform	π, ■, @	&, §
Enterococcus	π, ■	&
Fecal Streptococcus	@	§
Total Coliform		
Alkalinity (Total)	π, ■, @	&, §
BOD <sub>5</sub>	π, ■, @	&, §
Conductivity (Field)	π, ■, @	&, §
COD (Low)	@	
DO	π, ■, @	&, §
Hardness (Total)	π, ■, @	&, §
pH (Field)	π, ■, @	&, §
Residue (Dissolved)	@	
Residue (Settlable)	π, ■, @	&, §
Residue (Suspended)	π, ■, @	&, §
Temperature	■, @	&, §
Ammonia N	π, ■, @	&, §
As	π, ■, @	&, §
Cd	π, ■, @	&, §
Chlorophyll a	@	
Cr (Total)	π, ■, @	&, §
Cu	π, ■, @	&, §
Hg	π, ■, @	&, §
Mn	@	§
N (Total Kjeldahl)	@	&
Ni	π, ■, @	&, §
NO <sub>2</sub> +NO <sub>3</sub>	π, ■, @	&, §
P (Total)	π, ■, @	&, §
Pb	π, ■, @	&, §
Zn	π, ■, @	&, §

**Table A4-4a. Water Quality Parameters Monitored in the Loosahatchie River Watershed.**  
Codes are described in Table A4-4b.

CODE	STATION	ALIAS	AGENCY	LOCATION
A	GRAYS005.8SH		TDEC	Grays Creek @ RM 5.8
B	HOWELL000.3FA		TDEC	Howell Creek @ RM 0.3
C	KINGS001.9FA		TDEC	Kings Creek @ RM 1.9
D	LOOSA050.3FA	001768	TDEC	Loosahatchie River @ RM 53.6
E	BENNETTS000.2		TDEC	Bennetts Creek @ RM 0.2
F	LOOSAHATCH045.3		TDEC	Loosahatchie River @ RM 45.3
G	BANK001.6FA		TDEC	Black Ankle Creek @ RM 1.6
H	CANE001.1SH		TDEC	Cane Creek At RM 1.1
I	HOWAR002.1SH		TDEC	Howard Creek @ RM 2.1
J	LOOSA1T1.9FA	LOOSATRIB01.9	TDEC	Unnamed Trib to Loosahatchie River @ RM 1.9
K	RANER001.9SH		TDEC	Raner Creek @ RM 1.9
L	ROCKY000.9SH		TDEC	Rocky Branch @ RM 0.9
M	SCOTT001.7SH	SCOTTS001.7SH	TDEC	Scotts Creek @ RM 1.7
N	TODD001.6SH	003700	TDEC	Todd Creek @ RM 1.6
O	WEBER001.3FA		TDEC	Weber Branch @ RM 1.3
P	WILDE001.3FA		TDEC	Wilder Creek @ RM 1.3
Q	07030240		USGS	Loosahatchie River near Arlington
R	BIG001.0SH	000300	TDEC	Big Creek @ RM 1.0
S	CYPRE010.8FA	001017	TDEC	Cypress Creek @ RM 10.8
T	GRACE001.3SH	001405	TDEC	
U	LYCPR008.5FA	001705	TDEC	Little Cypress Creek @ RM 8.5
V	LLAUR03.7FA	001712	TDEC	Little Laurel Creek @ RM 3.7
W	LOOSA028.6SH	001790	TDEC	Loosahatchie River @ RM 28.6
X	LOOSA005.0SH	001800	TDEC	Loosahatchie River @ RM 5.0
Y	TODD001.6SH	003700	TDEC	Todd Creek @ RM 1.6
Z	CLEAR001.4SH	CLEAR001.4	TDEC	Clear Creek @ RM 1.4
#	LCYPR003.3FA	LCYPRESS003.3	TDEC	Little Cypress Creek @ RM 3.3
\$	LOOSAHATCH015.8		TDEC	Loosahatchie River @ RM 15.8
α	LOOSAHATCH017.2		TDEC	Loosahatchie River @ RM 17.2
β	LOOSAHATCH022.7		TDEC	Loosahatchie River @ RM 22.7
γ	LOOSAHATCH030.2		TDEC	Loosahatchie River @ RM 30.2
δ	LOOSAHATCH035.5		TDEC	Loosahatchie River @ RM 35.5
π	BAXTE001.0SH		TDEC	Baxter Bottom @ RM 1.0
ψ	EBEAV1C6.4TI		TDEC	East Beaver Creek Canal @ RM 6.4
■	KELLY001.0TI		TDEC	Kelly Branch @ RM 1.0
▲	MBEAV1C9.2TI		TDEC	Middle Beaver Creek Canal @ RM 9.2
♠	07030242		USGS	East Beaver Creek Canal Trib near Belmo
♣	07030243		USGS	Baxter Bottom @ Canaan Cove Road
♥	070302446		USGS	Middle Beaver Creek @ Highway 14
♦	07030246		USGS	Middle Beaver Creek near Gainesville
♪	070302481		USGS	West Beaver Creek Canal Trib near Moffatt Farm
Ω	07030249		USGS	West Beaver Creek Canal Trib @ Wilson Farm
Δ	070302491		USGS	Wetland Cell Inlet @ Middle Beaver Creek Canal
√	070302492		USGS	Wetland Cell Inlet @ Middle Beaver Creek Canal

¥	07030250		USGS	Beaver Creek near Arlington
£	BEAVERCKCN01.0		TDEC	Beaver Creek @ RM 1.0
@	WBEAVRCKCAN01		TDEC	West Beaver Creek @ RM 1.1
&	BIG013.6SH	BIG013.6	TDEC	Big Creek @ RM 13.6
§	BIG08.4		TDEC	Big Creek @ RM 8.4

**Table A4-4b. Water Quality Monitoring Stations in the Loosahatchie River Watershed.**  
TDEC, Tennessee Department of Environment and Conservation; USGS, United States Geologic Survey; TVA, Tennessee Valley Authority; NPS, National Park Service.

<b>FACILITY NUMBER</b>	<b>FACILITY NAME</b>	<b>SIC</b>	<b>SIC NAME</b>	<b>MADI</b>	<b>WATERBODY</b>	<b>HUC-10</b>
TN0023744	Jefferson School	4952	Sewerage System	Minor	Smart Creek @ RM 4.7	0801020901
TN0061441	Fayette Academy	4952	Sewerage System	Minor	Unnamed Trib to Jones Creek @ RM 3.6	0801020901
TN0073768	MAPCO Express #2016	5541	Gasoline Service Station	Minor	Open Ditch to Loosahatchie Canal	0801020901
TN0000141	PCS Nitrogen Fertilizer	2873	Nitrogenous Fertilizers	Minor	WWC to Loosahatchie River @ RM 11.7	0801020902
TN0000965	Air Liquide America	2813	Industrial Gases	Minor	WWC to Loosahatchie River @ RM 11.8	0801020902
TN0001091	E.I. Dupont & Company	2819	Inorganic Dyes	Major	Loosahatchie River @ RM 11.8	0801020902
TN0021351	Arlington Lagoon #1	4952	Sewerage System	Major	Loosahatchie River @ RM 30.7	0801020902
TN0066800	Bartlett STP #1	4952	Sewerage System	Major	Loosahatchie @ RM 18.4	0801020902
TN0067113	Memphis LG&W Pumping Station	4941	Water Supply	Minor	Unnamed Trib to Loosahatchie River @ RM 2.2	0801020902
TN0068543	Bartlett STP #2	4952	Sewerage System	Minor	Loosahatchie River @ RM 24.0	0801020902
TN0074012	Lakeland Lagoon	4952	Sewerage System	Minor	Loosahatchie River @ RM 24.1	0801020902
TN0023795	Northwest School	4952	Sewerage System	Minor	Unnamed Trib to Beaver Creek @ RM 3.6	0801020903
TN0021067	Millington STP #2	4952	Sewerage System	Major	Big Creek @ RM 6.9	0801020904
TN0026361	Memphis-Chapel Hill SD STP	4952	Sewerage System	Minor	Unnamed Trib to Unnamed Trib to Crooked Creek @ RM 3.0	0801020904
TN0065277	Mallard Ridge Mobile Estates	4952	Sewerage System	Minor	Unnamed Trib to North Fork Creek @ RM 4.7	0801020904
TN0056863	Camelia Homes	4952	Sewerage System	Minor	Unnamed Trib to Big Creek @ RM 22.1	0801020904

**Table A4-5. Active Permitted Point Source Facilities in the Loosahatchie River Watershed.**  
SIC, Standard Industrial Classification; MADI, Major Discharge Indicator; WWC, Wet Weather Conveyance.



<b>FACILITY NUMBER</b>	<b>FACILITY NAME</b>	<b>SIC</b>	<b>SIC NAME</b>	<b>WATERBODY</b>	<b>HUC-10</b>
TN0071374	Chancellor and Son, Inc.	1442	Construction Sand and Gravel	Unnamed Trib to Loosahatchie	0801021102
TN0071021	Fowler Construction Co.	1442	Construction Sand and Gravel	Unnamed Trib to Cane Creek	0801021102
TN0071692	Memphis Stone and Gravel Company	1442	Construction Sand and Gravel	Cane Creek	0801021102
TN0066125	Memphis Stone and Gravel Company	1442	Construction Sand and Gravel	Beaver Creek Canal	0801021103
TN0066354	Memphis Stone and Gravel Company	1442	Construction Sand and Gravel	West Beaver Ck	0801021103
TN0071269	Memphis Stone and Gravel Company	1442	Construction Sand and Gravel	Unnamed Trib to Crooked Fork Ck	0801021103
TN0066591	Standard Construction Company	1442	Construction Sand and Gravel	Unnamed Trib to Crooked Fork Ck	0801021103
TN0063185	Memphis Stone and Gravel Company	1442	Construction Sand and Gravel	Unnamed Trib to Crooked Fork Ck	0801021104

**Table A4-6. Active Permitted Mining Sites in the Loosahatchie River Watershed.** SIC, Standard Industrial Classification.

FACILITY NUMBER	FACILITY NAME	SECTOR	RECEIVING STREAM	AREA*	HUC-10
TNR051866	Willoughby, Incorporated	P	Ditch to Loosahatchie River	1.0	0801020901
TNR053013	Fowler Paving Company	D, E, P	James Creek	4.0	0801020901
TNR054557	Security Signals, Inc.	AA	Jones Creek	125.9	0801020901
TNR050198	PCS Nitrogen Fertilizer	C	Loosahatchie River	70.0	0801020902
TNR050242	Plant Maintenance Service	AA	Loosahatchie River	5.5	0801020902
TNR050316	Ring Can Corporation	Y, P	Cypress Creek	18.0	0801020902
TNR050871	Specialty Alloys Corp.	F	Loosahatchie River	5.0	0801020902
TNR050988	Woodstock CO <sub>2</sub> Plant (Air Liquide)	C	Loosahatchie River	1.6	0801020902
TNR051061	Osmose Wood, Inc.	C	Unnamed Trib to Loosahatchie Canal	2.1	0801020902
TNR051390	Morningstar Foods, Inc.	U	Unnamed Trib to Clear Ck, Clear Creek Canal, Loosahatchie River	12.7	0801020902
TNR051487	INEOS Acrylics, Inc.	C, Y, P	Goat Creek	8.9	0801020902
TNR051499	Wright Medical Tech	AC	Ditch to Loosahatchie Lateral A to Cypress Creek	2.1	0801020902
TNR051594	Safety-Kleen, Incorporated	L	Unnamed Trib to Loosahatchie River	5.0	0801020902
TNR053123	Delta Industrial Coatings	C	Ditch to Loosahatchie Drainage Canal	2.0	0801020902
TNR053260	Charles Baker Airport	S	Unnamed Trib to Loosahatchie River	259.0	0801020902
TNR053304	Miller Transporeters	P	Loosahatchie River	5.7	0801020902
TNR053498	Quickcrete	E	Loosahatchie River	5.6	0801020902
TNR053815	Simpson Auto Parts	M	Unnamed Trib to Loosahatchie River	9.0	0801020902
TNR053857	Pollution Control Industries	L	Loosahatchie River	16.0	0801020902
TNR054267	Grisham Corporation	AA	Loosahatchie River	5.4	0801020902
TNR054486	Precast Concrete Products	E	Unnamed Trib to Cane Ck	6.3	0801020902
TNR055050	Vollrath Corporation	Y	Little Cypress Creek	27.4	0801020902
TNR055061	M&D Coatings, Inc.	AA	Loosahatchie River	8.0	0801020902
TNR055896	B & B Recycled Auto Parts	M		9.7	0801020902
TNR051239	Midwest Zinc-Millington	F	Unnamed trib to Loosahatchie River	17.0	0801020902
TNR050646	Sandusky Cabinets, Inc.	AA	Big Creek	0.5	0801020904
TNR051012	A&R Auto Salvage	M, N, P	Big Branch creek	5.2	0801020904
TNR051519	Active Foreign Auto Parts	M	Big Creek Canal	12.0	0801020904
TNR051711	Environ. Transportation	P	WWC to Unnmamed Trib to Hebron Branch	2.0	0801020904
TNR053248	BFI North Shelby Landfill	L	Unnamed Trib to Big Creek	959.0	0801020904
TNR053508	Navsuppact Mid-South	AD	Big Creek	1584.0	0801020904
TNR053735	Millington Airport	S	North Fork Creek	537.0	0801020904

**Table A4-7. Active Permitted TMSP Facilities in the Loosahatchie River Watershed.** Area, acres of property associated with industrial activity; WWC, Wet Weather Conveyance. Sector details may be found in Table A4-8.

SECTOR	TMSP SECTOR NAME
A	Timber Products Facilities
AA	Facilities That Manufacture Metal Products including Jewelry, Silverware and Plated Ware
AB	Facilities That Manufacture Transportation Equipment, Industrial or Commercial Machinery
AC	Facilities That Manufacture Electronic and Electrical Equipment and Components, Photographic and Optical Goods
AD	Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Required)
AE	Facilities That Are Not Covered Under Sectors A Thru AC (Monitoring Not Required)
B	Paper and Allied Products Manufacturing Facilities
C	Chemical and Allied Products Manufacturing Facilities
D	Asphalt Paving, Roofing Materials, and Lubricant Manufacturing Facilities
E	Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing Facilities
F	Primary Metals Facilities
G	Metal Mines (Ore Mining and Dressing) (RESERVED)
H	Inactive Coal Mines and Inactive Coal Mining-Related Facilities
I	Oil or Gas Extraction Facilities
J	Construction Sand and Gravel Mining and Processing and Dimension Stone Mining and Quarrying Facilities
K	Hazardous Waste Treatment Storage or Disposal Facilities
L	Landfills and Land Application Sites
M	Automobile Salvage Yards
N	Scrap Recycling and Waste and Recycling Facilities
O	Steam Electric Power Generating Facilities
P	Vehicle Maintenance or Equipment Cleaning areas at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, the United States Postal Service, or Railroad Transportation Facilities
Q	Vehicle Maintenance Areas and Equipment Cleaning Areas of Water Transportation Facilities
R	Ship or Boat Building and Repair Yards
S	Vehicle Maintenance Areas, Equipment Cleaning Areas or From Airport Deicing Operations located at Air Transportation Facilities
T	Wastewater Treatment Works
U	Food and Kindred Products Facilities
V	Textile Mills, Apparel and other Fabric Product Manufacturing Facilities
W	Furniture and Fixture Manufacturing Facilities
X	Printing and Platemaking Facilities
Y	Rubber and Miscellaneous Plastic Product Manufacturing Facilities
Z	Leather Tanning and Finishing Facilities

**Table A4-8. TMSP Sectors and Descriptions.**

FACILITY NUMBER	PERMITEE	COUNTY	LIVESTOCK	WATERBODY	HUC-10
TNA000022	Thomas Dairy	Fayette	Dairy	Cypress Creek	0801020902

**Table A4-9. CAFO Sites in the Loosahatchie River Watershed.**

LOG NUMBER	COUNTY	DESCRIPTION	WATERBODY	HUC-10
98.212	Shelby	Stream Relocation	Unnamed Trib to Fletcher Creek	0801020901
98.218	Fayette	Rip-rap	Town Branch	0801020901
98.041	Fayette	Bridge Scour Repair	Loosahatchie River	0801020902
98.042	Fayette	Bridge Scour Repair	Little Cypress Creek	0801020902
98.084	Shelby	Bridge Scour Repair	Loosahatchie River	0801020902
98.558	Shelby	Evacuate In-Stream Pond	Unnamed Trib to Oliver Creek	0801020902
98.685	Fayette	Stream Relocation	Unnamed Trib to Black Ankle Ck	0801020902
98.724	Shelby	Stream Relocation	Unnamed Trib to Fletcher Creek	0801020902
98.726	Shelby	Culvert	Unnamed Trib to Fletcher Creek	0801020902
99.462	Shelby	Sea Wall	Garner Lake	0801020902

**Table A4-10. Individual ARAP Permits Issued January 1994 Through June 2000 in Loosahatchie River Watershed.**

FACILITY NUMBER	PERMITEE	RECEIVING STREAM	HUC-10
TNG110182	City Concrete Company	Loosahatchie River @ RM 1.0	0801020902
TNG110148	Carrier Excavation Company	Loosahatchie River	0801020902
TNG110201	51 Concrete	Wet Weather Conveyance to Loosahatchie River	0801020902
TNG110016	D & S ready Mix	North Fork to Big Creek	0801020904

**Table A4-9. Ready Mix Concrete Plant (RMCP) Sites in the Loosahatchie River Watershed.**